UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,351	08/08/2001	Philip Cunetto	P19897	2860

7055 7590 04/06/2005	EXAMINER
GREENBLUM & BERNSTEIN, P.L.C.	ROBERTS, BRIAN S
1950 ROLAND CLARKE PLACE	

ART UNIT	PAPER NUMBER
2662	

RESTON, VA 20191

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/923,351	CUNETTO ET AL.
	Examiner	Art Unit
	Brian Roberts	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 August 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>08 August 2001</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/23/01 11/18/04</u>. <u>04/19/04</u>

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claims 1-18 have been examined.

Drawings

1.   The drawings are objected to because the reference numbers for Figures 2 and 3 are unclear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2.   There is no brief summary of the invention.

        The following guidelines illustrate the preferred layout for the specification of a
utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or ·

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4.   Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneider et al.

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

-   In reference to claim 1

Schneider et al. teaches in Figure 12:

- A SVC Proxy Controller connected to an ATM Edge Switch (12) that connects to a Service Customer (10) via a signaling channel and where

the UNI setup is directed though the ATM Edge Switch to the SVC

controller (20) through the signaling channel; [0090]

- A proxy-signaling channel between the SVC Proxy Controller and the ATM

   Edge Switch (12) where the controller instructs the switch to establish a

   SVC connection in response to a request over the signaling channel.

- In reference to claims 2 and 15

Schneider et al. teaches in Figure 7 and 8 a system where the SVC service

controller involves PVC. [0072] [0069]

- In reference to claim 3

Schneider et al. teaches in Figure 8 a system where the SVC service controller

accesses policies that are stored in a database (24) that is physically separate from the

controller in response to a SVC service controller. [0072]

- In reference to claims 4 and 5

Schneider et al. teaches in Figure 12 a system where the Service Customer (10)

communicates with the ATM Edge Switch (12) via UNI signaling. [0090] [0068]

- In reference to claims 6 and 16

Schneider et al. teaches in Figure 7 the SVC service controller functioning using

ANNEX 2 of ATM UNI Signaling Specification Version 4.0 when issuing a UNI setup

command to the ATM edge switch. [0069]

- In reference to claim 7

Schneider et al. teaches in Figure 12 a first and second controller connected to

the ATM switch.

- In reference to claim 8

Schneider et al. teaches in Figure 12 a plurality of switches that are connected to the

controller.

- In reference to claim 9,10,17, and 18

Schneider et al. teaches in Figure 12 a system that intercepts IP packets and

supports IP and ATM implementations as well as using multi-protocol label switching,

optical, and TDM switching networks. [0091] [0030-0033]

- In reference to claims 11-14

Schneider et al. teaches in Figure 12 a method of service setup between two

service customers involving signaling between the ATM switches, the end users, and

the controllers as described in steps 1-7. [0090]

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-2, 4-11, and 13-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sreedharan et al. in view of Smyk.

- In reference to claims 1 and 7

Sreedharan et al teaches in Figure 1 a system comprising of:

- An ATM switch connected to a frame relay user where the frame relay user

  attempts to communicate with another frame relay user via an SVC

  connection. The signaling and switching functionality are resident in the ATM

  switch. (abstract, column 2 lines 25-50)

- A Network Management System (140) and a frame relay proxy controller

  connected to the ATM switch that is responsible for setting up each individual

  SVC connection, completing the data transfer via the SVC connection, and

  then breaking down the SVC connection. (column 5, lines 64-67)

- A signaling channel routed through the ATM switch (111-113) and terminating

  at the frame users (123-124), ATM users (121-122), and the NMS (140)

  where the ATM switch forwarded signaling to the NMS over the signaling

  channel (101).

- An ATM switch containing a controller for establishing a virtual circuit. (Figure

  2)

Sreedharan et al. does not teach a proxy signal channel between the ATM switch

and the controller used to set up an SVC connection in response to a request received

over the signaling channel.

Smyk teaches a system where a plurality of proxy agents communicate with the

ATM switch over the proxy channel in order to establish a SVC connection in response

to a received request. (column 2, lines 16-22; abstract). Smyk further teaches a method

where a plurality of proxy agents is connected to an ATM switch. Upon failure of a proxy

agent, a proxy agent selector selects a new proxy agent. (abstract, Figure 2) (claim 7 –

A second controller that becomes connected with the ATM switch when the controller

becomes unavailable)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system as taught by Sreedharan et al. to include a proxy

agent connected to the ATM switch over a proxy channel as taught by Smyk in order for

the proxy agent to remain separate from the ATM switch and allow for the system to

continue to function upon failure of the assigned proxy agent since the plurality of proxy

agents can be used as a backup for each other.

- In reference to claims 11 and 15

Sreedharan et al. teaches a system where an end user attempts to communicate

with another end user via a SVC connection through an ATM switch network. The

process inherently involves a setup request by the end user before a virtual circuit is established to transfer data across the network. Sreedharan et al. further teaches the NMS (140) establishing the PVC connection. The call control and signaling management controller (234) in the ATM switch is responsible for providing the SVC signaling and switching for the connection after the PVC is established. (column 5 lines 23-45) (claim 15 – controller receiving via a PVC)

Sreedharan et al. does not teach a controller sending a proxy signal to an ATM switch in order to set up an SVC connection across the ATM network.

Smyk teaches a system where a proxy agent receives a setup request from an ATM switch and then sends a proxy signal to the switch. (Figure 1-2, column 2 lines 10-45)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include a proxy agent connected to the ATM switch and send a proxy signal via proxy channel as taught by Smyk in order for the proxy agent to communicate with ATM switch and begin setup of a SVC within the ATM backbone network for data transfer between end users.

-   In reference to claim 2

Sreedharan et al. teaches a system that covers substantially all limitations of these claims.

Sreedharan et al. teaches the establishment of PVC connections through the

ATM backbone network (101). (column 4, lines 51-67) (claim 2 – signaling channel

further comprises a PVC)

- In reference to claim 8

Sreedharan et al. teaches a system that covers substantially all limitations of

these claims. Sreedharan et al. teaches a system where a plurality of ATM switches

(111-113) is connected to the controllers within the ATM switches (111-113). (Figure 1-

2)

Sreedharan et al. does not teach a system where a plurality of ATM switches

is connected to a proxy control agent.

Smyk teaches a system where a plurality of ATM switches is connected to the

proxy control agent. (Figure 2) (claim 8 – plurality of switches connected to the

controller)

It would have been obvious to a person of ordinary skill in the art at the

time of the invention to modify the system as taught by Sreedharan et al. to include a

proxy agent connected to the ATM switches as taught by Smyk in order for the proxy

agent to communicate with ATM switches and begin setup of a SVC within the ATM

backbone network for data transfer between end users.

- In reference to claims 9, 10, 17 and 18

Sreedharan et al. teaches a system that covers substantially all limitations of these claims. Sreedharan et al. further teaches an ATM access concentrator (130) capable of receiving a plurality of input data streams comprising of frame relay data and ATM cells and converting them into an ATM cell output stream. (column 4 lines 38-50, Figure 1) (claims 10, 18 –IWF gateway that converts non-system signaling into ATM signaling)

Sreedharan et al. does not teach a system that intercepts IP packets and retrieves IP signaling for processing by the controller to support Internet Protocol.

Sreedharan et al. teaches a system capable of handling packet-based data streams. (claims 9, 17 – intercepts IP packets and retrieve IP signaling for processing by the controller to support Internet Protocol)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include the access concentrator to intercept IP packets and support Internet Protocol as well as frame relay data and ATM cells since those are all packet-based technologies and are used in LANs and WANs to provide the processing bandwidth and speed necessary to communicate real time voice, data, and graphics between end users

- In reference to claims 4-6 and 16

Sreedharan et al. teaches a system that covers substantially all limitations of these claims.

Sreedharan et al. does not teach an end system comprising an ATM SVC UNI signaling device or the proxy signals being SVC connection protocol compliant.

Smyk teaches a system where a SVC is established between two end users and where the ATM switch proxy agents are connected to the ATM switches. (column 1 lines 34-67; Figure 1) (claim 4 – end system further comprises an ATM SVC signaling device) The signaling involves the ATM Forum's UNI proxy signaling standard. (column 1, lines 36-67) (claim 5 – signaling comprises UNI signaling) (claims 6, 16 – proxy signal further comprises SVC connection protocol compliant signaling)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include the end users using UNI signaling because UNI is a signaling standard common in the art and used in establishing a SVC connection in a system involving an ATM network.

-   In reference to claim 13

Sreedharan et al. teaches a system that covers substantially all limitations of these claims. Sreedharan et al further a method of sending signals between ATM switches, controllers, and end users to establish a connection. (Figure 1-2)

Sreedharan et al. does not teach a second proxy signal from a second ATM switch to a second controller and a second controller sending a second connection setup signal to a second end system through the second switch.

Smyk teaches a system where a second proxy agent receives a proxy signal from a second ATM switch and then sends a proxy signal to the second switch to set-up the SVC. (Figure 1-2, column 2 lines 10-45)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include a second proxy agent connected to a second ATM switch and send a second proxy signal via proxy channel as taught by Smyk in order for the second proxy agent to communicate with the second ATM switch and begin setup of a SVC within the ATM backbone network for data transfer between end users.

- In reference to claim 14

Sreedharan et al. teaches a system that covers substantially all limitations of these claims. Sreedharan et al. further a method of sending signals between ATM switches, controllers, and end users to establish a connection. (Figure 1-2)

Sreedharan does not teach explicitly teach a method of receiving by the second controller a first connection connect signal from the second end system that is routed through the second ATM switch; sending a third proxy signal from the second controller to the second ATM switch; sending a second connection connect signal from the second ATM switch to the first ATM switch; sending a fourth proxy signal from the first ATM switch to the first controller; and sending a third connection connect signal from the first controller to the first end system, the third connection connect signal being routed through the first ATM switch.

Smyk teaches a system in figure 2 where a first proxy agent and a second proxy agent communicate to switch 1 and switch 2 over a proxy channel. (Figure 1-2, column 2 lines 10-45, column 3 lines 4-66, column 4 lines 1-10)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system of establishing a SVC between end users as taught by Sreedharan et al. to include the proxy signaling between proxy agents 1 and 2 and switches 1 and 2 as taught by Smyk in order for the second proxy agent to communicate with the second ATM switch and begin setup of a SVC within the ATM backbone network for data transfer between end users.

7.   Claim 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sreedharan et al. in view of Smyk, as applied to claims 1 and 11 above, and further in view of Hemmady.

-   In reference to claim 3 and 12

The combination of Sreedharan et al. and Smyk teach a system that covers all limitations of the parent claims.

Sreedharan et al. and Smyk do not teach the controller communicating with a policy database in response to an ATM SVC setup connection request and determining whether to grant the connection request.

Hemmady teaches a method where an ATM controller communicates with a database storing data on the quality of service and congestion level of the network

when selecting a SVC from a received setup signal. (abstract, [0065]-[0069], Figure 6)

(claims 3, 12 – controller queries policy database when a first connection setup signal is

received to determine whether to grant a connection request)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system as taught by the combination of Sreedharan et al.

and Smyk to include a database for storing quality of service and congestion level data

as taught by Hemmady to be queried by the proxy agent in order for the proxy agent to

determine whether to grant the connection request and in order to select the best route

for the connection.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure is:

- Chiu et al. (US 6597689 B1) teaches a SVC signaling system and method

  in an ATM network.

- Hemmady (US 6633569 B2) teaches a system and method of routing data

  cells through an ATM architecture using quality of service data in a service

  control point.

- Munakata et al. (US 6400716 B1) teaches an asynchronous transmission

  mode switch and control method of the asynchronous transmission mode

  switch.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brian Roberts whose telephone number is (571) 272-

3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BSR

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600